



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,221	02/27/2001	Roger C. Becerra	03-DV-7106	7007
23465	7590	11/04/2004	EXAMINER	
JOHN S. BEULICK C/O ARMSTRONG TEASDALE, LLP ONE METROPOLITAN SQUARE SUITE 2600 ST LOUIS, MO 63102-2740			FLETCHER, MARLON T	
			ART UNIT	PAPER NUMBER
			2837	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/681,221

Applicant(s)

BECERRA ET AL.

Examiner

Marlon T Fletcher

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-11,31-35,40-44,46-48 and 54-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-11,31-35,40-44,46-48 and 54-65 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>08/09/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-11, 31-35, 40-44, 46-48, 54-60, and 62-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bessler et al. (5,410,230) in view of Alford (5,220,255) and Kliman et al. (6,262,550).

As recited in claims 1 and 31, Bessler et al. disclose a method for interfacing an electric motor to a controller using an electrical interface circuit (308, inherent, wherein connection is provided), including a controller circuit (302) and a motor control circuit (310), the controller circuit including a transmission and a reception, the motor control circuit including a transmission and a reception, and the interface (inherent) electrically coupled to the controller and the electric motor as seen in figure 3, said method comprising the steps of: receiving a signal from the controller as discussed in column 4, lines 52-68; and outputting the signal to control the electric motor as discussed in column 5, lines 5-12; receiving a signal from the electric motor as discussed in column 5, lines 37-45; and transmitting the received signal from the electric motor to the controller as discussed in column 5, lines 51-59.

As recited in claim 2, Bessler et al. disclose a method, wherein said step of receiving a signal comprises the step of the controller circuit receiving electrical signals from the controller as seen in figure 3.

As recited in claims 5 and 35, Bessler et al. disclose a method, wherein said step of outputting the signal comprises the step of isolating a transmit signal to the electric motor as seen in figures 2 and 3.

As recited in claims 6, 7, 41, 43 Bessler et al. disclose a method, wherein said step of outputting the signal further comprises the step of interrogating the electric motor to acquire status and diagnostic information, wherein said step of interrogating the electric motor further comprises the step of acquiring at least one of an operating status, an operating speed, an operating torque, an input power consumption, an under-speed condition, and a time of operation above a desired power level from the electric motor as discussed in column 9, lines 16-59.

As recited in claims 8 and 42, Bessler et al. disclose the method, wherein said step of outputting the signal further comprises the step of commanding the electric motor to operate as at least one of a constant torque motor, a constant airflow motor, and a constant speed motor as disclosed in the abstract and as seen in figures 2 and 3.

As recited in claims 9 and 44, Bessler et al. disclose the method, wherein said step of outputting the signal comprises the step of controlling at least one of an operating profile, a speed limit, dynamic braking, and an inrush current of the electric motor as discussed in column 5, lines 45-65.

As recited in claim 10, Bessler et al. disclose the method, wherein said step of receiving a signal comprises the step of isolating a receive signal from the electric motor as seen in figures 2 and 3.

With respect to claims 46-48, and 59-60 Bessler et al. disclose bi-direction communication as seen in figures 2 and 3.

Bessler et al. do not directly disclose adjusting the level of the first signal nor does Bessler et al. disclose the use of RF or Infrared signals.

However, with respect to claims 1, 4, 31, Alford discloses a method of interfacing an electric motor to a controller using an electrical interface circuit (10), including connections to a controller (120) and motor control circuit (26), wherein the method comprises the steps of: adjusting a level of a first signal received from the controller (120) that is separate from a thermostat (22) configured to communicate a temperature to the controller (column 5, lines 30-34); outputting the second signal to control the motor (26) (column 5, lines 26-34); receiving a third signal from the motor and transmitting the signal to the controller as seen in figure 1, wherein the controller is in communication with the ECM (26) via interface (10).

As recited in claims 32-34, Alford discloses adjusting a voltage or power in communications with the controller and the electric motor in order to control a desired level (column 3, lines 46-52; column 4, lines 21-56).

As recited in claims 1, 11, 31, 40, 46-48, 54, 58, and 62, Kliman et al. a method, wherein said step of adjusting a level of the received signal comprises the step of converting an electrical signal from the controller and motor to at least one of an infrared

signal and an RF signal, wherein Kliman et al. disclose a communication link between the motor unit and the controller unit, wherein the communication can be one radio frequency signals as discussed in column 5, lines 16-28.

As recited in claim 36-39, 54, Kliman et al. disclose the electrical interface, wherein said motor transmit control circuit further comprises a first and second optocoupler, which is inherent from the use of RF signals as discussed above, wherein the sensors for RF signals are usually optocoupler.

Limitations with respect to claims 55-58 and 63-65 are discussed above.

It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the teachings of Alford and Kliman et al. with the apparatus and method of Bessler et al., because Alford discloses the teachings of adjusting the received signal and Kliman et al. provide the use of RF signals, wherein signals can be wirelessly transmitted, thereby enhancing operation in the transmission of data from the motor to the controller, wherein the level of the signal can be controlled in the process.

### ***Response to Arguments***

3. Applicant's arguments filed 08/09/2004 have been fully considered but they are not persuasive.

The applicant's remarks and amendments have been considered. However, the examiner does not feel as though the amendments read over the prior art. The examiner remains with the position taken in the last office action. It is believed that the

claims are met in view of the last office action. Because the examiner disagrees with applicant's comments, this action is made final.


4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marlon T Fletcher whose telephone number is 571-272-2063. The examiner can normally be reached on M-W, F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marion T. Fletcher  
Primary Examiner  
Art Unit 2837

MTF  
November 01, 2004